

What is claimed is:

1. A die board for cutting and/or creasing sheet-type work material comprising:

a die board base having a first upper surface, a second lower surface, and at least one slot extending along said first upper surface;

5 said slot having a first slot section extending from said first upper surface at least part-way through said die board base, and a second slot section extending from said second lower surface at least part-way through said die board base; and

10 at least one die board rule pressingly engaged in and grippingly retained by at least one of said first and second slot sections.

2. A die board for cutting and/or creasing sheet-type work material, as defined by claim 1, wherein:

said first and second slot sections each define a width, with said first slot section width being different from said second slot section width.

3. A die board for cutting and/or creasing sheet-type work material, as defined by claim 2, wherein:

5 said die board rule is positioned in said first and second slot sections and defines a tip portion extending from said first upper surface of said die board base for cutting or creasing said work material; and wherein

said first slot section is filled with filler material surrounding a portion of said die board rule positioned therein, to prevent deflection of said die board rule within said first slot section during operation of said die board.

4. A die board for cutting and/or creasing sheet-type work material, as defined by claim 3, wherein said filler material is an epoxy.

5. A die board for cutting and/or creasing sheet-type work material, as defined by claim 2, wherein:

said first slot section defines opposing slot walls; and

5 at least one spacer is positioned in said first slot section in pressing engagement with at least one of said slot walls, and said die board rule to prevent deflection of said die board rule within said first slot section during operation of said die board.

6. A die board for cutting and/or creasing sheet-type work material as defined by claim 1, wherein said die board base is a laminate including:

a first layer of die board material defining a third lower surface, said first slot section extending through said first layer of die board material;

at least a second layer of die board material defining a fourth upper surface, said second slot section extending through said second layer of die board material; and

a layer of adhesive interposed between and bonding said third lower surface to said fourth upper surface.

7. A die board for cutting and/or creasing sheet-type work material as defined by claim 6, wherein:

said first and second slot sections each define a width, with said first and slot section widths being different.

8. A die board for cutting and/or creasing sheet-type work material as defined by claim 6, wherein:

said second slot section extends through said second layer of die board material and part-way into said first layer of die board material;

said third lower surface and said fourth upper surface have such release characteristics relative to said layer of adhesive that when said first layer of die board material is separated from said second layer of die board material said layer of adhesive remains bonded to said third upper surface leaving said second lower surface substantially free of adhesive; and whereby

upon separating said second layer of die board material from said first layer of die board material, said second layer of die board material can be bonded to said first upper surface so that said die board rule extends through and is grippingly retained by said slot in said second layer of die board material and said second slot section in said first layer of die board material.

9. A die board for cutting or creasing sheet-type work material as defined by claim 8, wherein:

said second layer of die board material includes a lower surface having a layer of pressure sensitive adhesive bonded thereto; and

a layer of sheet material having release characteristics overlying and adhered to said layer of pressure sensitive adhesive, such that said layer of sheet material can be peeled away exposing said pressure sensitive adhesive which can then be employed to bond said second layer of die board material to said first upper surface.

10. A die board for cutting or creasing sheet-type work material as defined by claim 6, wherein said first and second layers of die board material are wood.

11. A die board for cutting or creasing sheet-type work material as defined by claim 6, wherein said first and second layers of die board material are plastic.

12. A die board for cutting or creasing sheet-type work material as defined by claim 6, wherein one of said first and second layers of die board material is plastic and the other of said layers of die board material is wood.

13. A die board for cutting or creasing sheet-type work material as defined by claim 6, wherein one of said first and second layers of die board material is plastic and the other of said layers of die board material is foam.

14. A die board for cutting or creasing sheet-type work material as defined by claim 6, wherein one of said first and second layers of die board material is wood and the other of said layers of die board material is foam.

15. A die board for cutting and/or creasing sheet-type work material as defined by claim 6 wherein:

said first layer of die board material defines at least one aperture extending therethrough;

5 said second layer of die board material defines at least one mating aperture extending therethrough and aligned with said aperture in said first layer of die board material; and

10 at least one alignment pin is pressingly positioned in, and extends through said aperture and mating aperture in said first and second layers of die board material.

16. A die board for cutting and/or creasing sheet-type work material as defined by claim 6, further comprising:

said second layer of die board material defining a fifth lower surface;

a third layer of die board material defining a sixth upper surface, said

5 second slot section extending through said third layer of die board material;

a second layer of adhesive interposed between and bonding said sixth upper surface to said fifth lower surface;

10 said fifth lower surface and said sixth upper surface having such release characteristics relative to said second layer of adhesive that when said third layer of die board material is separated from said second layer of die board material said second layer of adhesive remains bonded to said sixth upper surface leaving said fifth lower surface substantially free of adhesive; and whereby

15 upon separating said third layer of die board material from said second layer of die board material, said third layer of die board material can be attached to said first upper surface so that said die board rule extends through and is grippingly retained by said slot in said second and third layers of die board material.

17. A die board for cutting and/or creasing sheet-type work material as defined by claim 16, wherein said first, second, and third layers of die board material are wood.

18. A die board for cutting and/or creasing sheet-type work material as defined by claim 16, wherein said first, second, and third layers of die board material are plastic.

19. A die board for cutting and/or creasing sheet-type work material as defined by claim 16, wherein at least one of said first, second, and third layers of die board material is plastic and at least one of the other of said layers of die board material is wood.

20. A die board for cutting or creasing sheet-type work material as defined by claim 16, wherein at least one of said first, second, and third layers of die board material is plastic and at least one of the other of said layers of die board material is foam.

21. A die board for cutting or creasing sheet-type work material as defined by claim 16, wherein at least one of said first, second, and third layers of die board material is wood and at least one the other of said layers of die board material is foam.

22. A method for fabricating a die board for cutting and/or creasing sheet type work material, said method comprising the steps of:

providing a die board base having a first upper surface and a second lower surface;

5 providing an apparatus for cutting at least one slot in said die board base;

presenting said die board base to said apparatus;

operating said apparatus to cut said slot such that said slot includes an upper slot section having a first width and a lower slot section having a second

10 width that is less than the width of the first slot section;

positioning at least one die board rule into said slot, such that said die board rule is grippingly retained in said second slot section.

23. A method for fabricating a die board for cutting and/or creasing sheet-type work material, as defined by claim 22 wherein:

said step of providing an apparatus for cutting at least one slot in said die board base includes providing an apparatus employing at least one rotary cutting
5 tool.

24. A method for fabricating a die board for cutting and/or creasing sheet type work material as defined by claim 22, wherein said die board base includes a first layer of die board material, and at least a second layer of die board material, and wherein:

5 said step of operating said apparatus to cut a slot into said die board base includes, cutting a first slot defining said first slot section through said first layer of die board material, and cutting a second slot through said second layer of die board material, said second slot defining said second slot section; and

10 prior to said step of positioning at least one die board rule into said slot, said method includes the step of bonding said second layer of die board material to said second lower surface of said first layer of die board material, such that said first and second slot sections are substantially aligned.

25. A method for fabricating a die board for cutting and/or creasing sheet type work material as defined by claim 24 wherein said die board base includes a third layer of die board material, and:

5 said step of operating said apparatus to cut a slot into said die board base includes cutting a third slot through said third layer of die board material corresponding to said second slot section; and

10 said step of bonding said second layer of die board material to said second lower surface of said first layer of die board material, further includes bonding said third layer of die board material to said first upper surface of said first layer of die board material such that said slots in each of said layers of die board material are substantially aligned.

26. A method for fabricating a die board for cutting and/or creasing sheet type work material as defined by claim 23, wherein said die board base includes a first layer of die board material, and at least a second layer of die board material having a third upper surface and a fourth lower surface, said method including the further steps of:

5 adhering said third upper surface of said second layer of die board material to said second lower surface of said first layer of die board material;

10 said step of providing an apparatus for cutting at least one slot in said die board base, includes employing a rotary cutting tool having an upper cutting portion defining a first diameter, and a lower tip portion defining a second diameter smaller than said first diameter; and

15 said step of operating said apparatus to rotatably cut at least one slot into said layer of die board material further includes cutting said slot through said first and second layers of die board material, such that said slot in said first layer of die board material includes a first slot section having a slot width equal to said first diameter of said rotary cutter, and a second slot section having a slot width equal to said second diameter of said rotary cutter, and said slot in said second layer of die board material has a slot width at least equal to said second diameter of said rotary cutter;

20 separating said first and second layers of die board material;

bonding said second layer of die board material to said first upper surface such that said slots in each of said layers of die board material are substantially aligned with one another; and wherein

25 said step of positioning at least one die board rule into said slot further includes positioning said die board rule into said slot in said second layer of die board material such that said die board rule is grippingly retained therein and extends therethrough into said slot in said first layer of die board material.

27. A method for fabricating a die board for cutting and/or creasing sheet-type work material, as defined by claim 22 wherein:

said step of providing an apparatus for cutting at least one slot in said die board base includes providing an apparatus employing a laser.

28. A method for fabricating a die board for cutting and/or creasing sheet-type work material, as defined by claim 22 wherein:

said step of providing an apparatus for cutting at least one slot in said die board base includes providing an apparatus employing at least one saw.

29. A method for fabricating a die board for cutting and/or creasing sheet-type work material, as defined by claim 22 wherein:

said step of providing an apparatus for cutting at least one slot in said die board base includes providing an apparatus employing a water jet.